REMARKS

Claims 11-13 and 15-26 are pending in the present application. No additional claims fee is believed to be due.

Claims 11 and 15 have been amended to more particularly define the invention. Support for the amendment is found at page 7, lines 5-6 of the Specification. It is believed these changes do not involve any introduction of new matter. Consequently, entry of these changes is believed to be in order and is respectfully requested.

Rejection Under 35 U.S.C. §102(b) or in the Alternative under 35 U.S.C. §103(a) Over Boskamp

The Examiner has rejected Claims 11-13 and 15-26 under 35 U.S.C. §102(b) as allegedly being anticipated by, or alternatively under 35 U.S.C. §103(a) as allegedly being obvious over U.S. Patent Number 4,462,922 issued to Boskamp et al., and assigned to Lever Brothers Company (hereinafter referred to as "Boskamp"). Applicants respectfully traverse this rejection. Applicants submit that Boskamp does not contain all of the material elements of the present invention. Specifically, presently amended independent Claims 11 and 15, from which the balance of the rejected claims ultimately depend, require that the final liquid dishwashing detergent composition comprise **less than 5%** by weight of antioxidant. In contrast, as stressed by the Examiner, Boskamp requires that its final enzymatic aqueous liquid detergent composition comprise **at least 5%** by weight of antioxidant. In light of this requirement, Applicants contend that the claimed invention is neither anticipated by, nor obvious in light of Boskamp and request that the rejection be withdrawn. Furthermore, Applicants wish to underscore that the present amendments to independent Claims 11 and 15 significantly narrow their scope. As previously presented, Claims 11 and 15 contained no limitation upon the amount of antioxidant in the detergent composition. The newly added limitation upon antioxidant content finds its antecedent basis in lines 5-6, on p.7 of the Specification. There it is indicated, as it has been since the Application's original submission and subsequent art search by the Examiner, that the antioxidant when it *is* present in the composition be present in the composition from about 0.001% to about 5% by weight. For the foregoing reasons, Applicants respectfully submit that the current amendment limiting the detergent composition to less than 5% by weight of antioxidant will not raise new issues that would require further consideration and/or search by the Examiner.

Applicants further submit that even if the aforementioned additional limitations to independent Claims 11 and 15 did not obviate the Examiner's §103(a) rejection, the present invention as amended would still be unobvious in light of Boskamp for the following reasons.

First, as asserted by the Examiner, Boskamp is silent as to the order of process steps in which the components are added to make its disclosed composition. Indeed, Boskamp does not disclose process steps at all. In contrast, present Claims 11 and 15 disclose 2 and 3 distinct process steps respectively. Applicants respectfully submit that since Boskamp does not disclose process steps, the present claims cannot possibly constitute a reversal or changing of their order. As a result the case law cited by Examiner is not dispositive and the process steps disclosed by Claims 11 and 15 are not obvious in light of Boskamp. Consequently, the balance of the present Claims which ultimately depend from Claims 11 and 15 are also unobvious in light of Boskamp.

Second, Boskamp teaches away from the present invention. "A prior art reference must be considered in its entirety, i.e., as a whole including portions that would lead away from the claimed invention (MPEP § 2141.03 citing *W.L. Gore & Associates, Inc. v. Garlock Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 Y,S, 851 1984). Boskamp teaches that high-alkaline amylases can be used in its enzymatic liquid detergent compositions (see Column 3, lines 26-29). Furthermore, Boskamp purports to teach that conventional materials may be present in its enzymatic liquid detergent compositions, including *oxygen-liberating bleaches such as hydrogen peroxide* (see Column 4, lines 40-45). Thus one having ordinary skill in the art would be motivated by Boskamp to make a liquid detergent composition by combining a high-alkaline amylase with an oxygen-liberating bleach such as hydrogen peroxide. Such motivation is in direct conflict with the teachings of the present invention, because even small amounts of hydrogen peroxide can impair enzyme stability in a liquid detergent composition. In contrast, the present invention discloses that hydrogen peroxide levels in the liquid detergent be kept as low as possible (the present compositions preferably contain 0.02% or less of hydrogen peroxide (see Specification page 6, lines 26-31)). Even more importantly, the present invention discloses that antioxidant, which reduces levels of hydrogen peroxide (see Specification page 6, line 33 through page 7, line 1), be added to the detergent premix before the amylase enzymes are added. Boskamp teaches away from the present invention in that it teaches aqueous enzymatic liquid detergent compositions consisting of high-alkaline amylases and oxygen-liberating bleaches such as hydrogen peroxide, without recognizing, much less addressing how to prevent, the resulting reduction in amylase enzyme activity in the final detergent composition.

For the foregoing reasons, Applicants submit that the present claims as amended are not anticipated or in the alternative obvious in light of Boskamp. As a result, Applicants respectfully request withdrawal of the §102(b) and §103(a) rejections.

Rejection Under 35 U.S.C. §103(a) Over Vinson

Claims 11-13 and 15-26 have been rejected under 35 U.S.C. §103(a) as allegedly being obvious over U.S. Patent Number 6,069,122 issued to Vinson et al., and assigned to the Procter & Gamble Company (hereinafter referred to as "Vinson"). The Examiner makes this obviousness rejection on two bases. First, the Examiner asserts that Vinson provides motivation to one of ordinary skill in the art to make a liquid detergent composition free of hydrogen peroxide and further provides motivation to not allow the hydrogen peroxide to react with the enzyme. Second, the Examiner asserts that because Vinson teaches a liquid detergent composition comprising amine oxide, enzymes, and magnesium and calcium in example II, that it would have been obvious to one of ordinary skill in the art to formulate a detergent composition comprising an amine oxide and an antioxidant and adding an amylase enzyme in a second step. While Applicants acknowledge that Vinson provides motivation not to allow hydrogen peroxide to react with the enzyme, Applicants assert that Vinson does not teach one of ordinary skill in the art how to do so. Thus the two distinct process steps of the present invention are not obvious in light of Vinson.

Applicants would like to underscore that independent Claims 11 and 15, and the balance of the Claims that ultimately depend there from, relate entirely to a process for making a liquid dishwashing detergent composition wherein the composition comprises substantially no residual hydrogen peroxide. The process of the present invention comprises two distinct process steps—the first of which relates to the production of a premix. Hydrogen peroxide levels in the premix preferably contain less than 0.02% of hydrogen peroxide. The minimization of hydrogen peroxide in the premix is achieved two ways: first, by reducing to the maximum extent possible the amount of hydrogen peroxide in the component raw materials that form the premix; and second, by adding antioxidants to the formed premix in order to reduce the levels of any residual hydrogen peroxide that is present in the component raw materials. Only after residual hydrogen peroxide levels are substantially reduced can the amylase enzyme be added. Thus the second step of the present invention consists of adding the amylase enzyme to the premix to form the resulting liquid dishwashing detergent composition. Applicants submit that Vinson does not recognize or suggest the utility of a two-step process to formulate an amylase-containing liquid dishwashing detergent to limit enzyme exposure to hydrogen peroxide and thereby prevent reduction of the enzyme's activity and related cleaning benefits in the final liquid dishwashing detergent

composition. Therefore, independent Claims 11 and 15, and the balance of the Claims that ultimately depend there from, which relate entirely to a process for making a liquid dishwashing detergent composition wherein the composition comprises substantially no residual hydrogen peroxide, are not obvious in light of Vinson and as such the rejection should be withdrawn. In the alternative, Applicants note that they are willing to consider filing a terminal disclaimer that would reduce the patent term of the present invention such that it would not extend beyond that of Vinson.

Conclusion

In light of the above remarks, it is requested that the Examiner reconsider and withdraw the rejections. Early and favorable action in the case is respectfully requested.

Applicants have made an earnest effort to place their application in proper form and to distinguish the invention as now claimed from the applied references. In view of the foregoing, Applicants respectfully request reconsideration of this application, entry of the amendments presented herein, and allowance of Claims 11-13 and 15-26.

Respectfully submitted,

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